

August 30, 2019

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

Re: **Ex Parte Submission**

***Modernizing the E-rate Program for Schools and Libraries -- WC Docket No. 13-184
Schools and Libraries Universal Service Support Mechanism -- CC Docket No. 02-6***

Dear Ms. Dortch:

On August 27, 2019, Kyle Tully and John Harrington shared the attached "Category 2 Budget Utilization" presentation with the following FCC staff:

- Narali Patel, Wireline Advisor for Chairman Pai
- Randy Clarke, Wireline and Public Safety Advisor for Commissioner Starks
- Joseph Calascione, Wireline and Consumer Protection Advisor for Commissioner Carr

In three separate meetings, we explained that the E-rate Category Two ("C2") budget system is a success. In the years immediately prior to its inception, schools and libraries received no financial support for on-campus broadband; and, prior to that, support had been inconsistent and mostly limited to a small percentage of E-rate applicants. This impeded the deployment of Wi-Fi and created a myriad of issues for schools and libraries, as well as administrative issues for the E-rate program.

Now, using the C2 budget system, all school and library sites can receive E-rate discounts for on-campus connectivity; indeed, over the past five years, 85% of school sites and 44% of library sites have benefited from these discounts. We estimate that the total investment has been \$6.46 billion, with the E-rate program providing \$4.69 billion, and schools and libraries paying the balance of \$1.77 billion. We mentioned that 84% of applicants in a recent survey agreed that they could depend on E-rate funding.

We recommended that the FCC make permanent the C2 budget system. We also shared that there were several opportunities to enhance and improve the C2 budget system. As of today, the budget system does not adequately address the needs of very small schools and libraries, nor does it sufficiently support the needs of buildings that are more expensive to outfit with Wi-Fi, particularly older buildings. This latter group represents about 40% of school sites that could benefit from a higher per student budget factor.

We explained that administering the C2 budget at the site-level, and the requirement to perform cost allocations to remove security and other important network functionality, both were creating unnecessary complexity that resulted in funding delays and denials without adding value to the program. We expressed our view that district-level (a.k.a. system-level) budgets would dramatically reduce the administrative burden for participants, speed the application review process and, for the most part, eliminate most C2-budget related funding denials. We also shared our belief that eliminating cost allocations would simplify the program, and, coupled with allowing applicants the freedom to receive discounts on all network related infrastructure, would be a major enhancement to the program's ability to effectively serve the needs of applicants.

We also discussed the current practice of forcing applicants to reduce the reported scope of work for their C2 services. This is a significant impediment to the FCC's goal of gathering comprehensive data regarding the needs of schools and libraries.

After outlining these areas for improvement, we shared additional statistics about the use of E-rate funding in schools, such as the average annual funding of \$22,089 per site, the average discount rate of 71%, and the fact that about one-third of sites were included on applications in any given funding year.

In each presentation, we emphasized that the low E-rate budget floor, currently about \$9,800, was too low, and, because of that, small schools were three times more likely not to receive C2 support than larger facilities, and that this trend was consistent regardless of the size of the "parent" applicant (i.e. the size of the school district submitting the Form 471 application.) In charting the average utilization rate of school buildings based on their overall C2 budget, it appears that it is at around the \$30,000 mark that the utilization of C2 funds reaches an average level. Above that level, the utilization of C2 funds is remarkably consistent. (The overall average school site budget utilization is 65.1%.) We shared our estimate that the increase in the budget floor to \$30,000 would result in an additional \$59.2 million investment per year of E-rate funding.

We then discussed the per student budget factor. We explained that there were an estimated 111,963 school sites with the opportunity to request C2 discounts from year 2015 to 2019. We described that per student budget utilization varied from school building to school building, based on factors such as the age of the building, the school's current level of technology integration, and the school's access to funding to pay its share of project costs. For example, there were 2,147 school sites, of varying size, that spent a total in the range of \$63.88 to \$71.85 per student. Looking at all the buckets of spending levels, there were around 2% of sites in each \$8 range of spending, up until reaching the C2 per student budget cap of approximately \$160. At this point, the sites that had more expensive projects were required to truncate their requests and move them to the level of the C2 per student budget cap. We described that this pattern was consistent across school sizes, locations, and discount rates. Charting the distribution of project costs that were below the budget cap, the trend indicates that most applicants would have had their needs sufficiently met had the per student budget cap been set at \$255.78. We shared our estimate that an increase in the per student budget cap to \$256 would result in an additional \$71.1 million investment per year of E-rate funding.

Finally, we shared a similar type of analysis for library sites. We explained that libraries follow a different pattern. Their utilization of C2 funds is not impacted by the budget floor amount in the same way that school sites are. Furthermore, the C2 per square foot budget factors seem to closely match the actual demand listed on library applications. Our trendline analysis suggest that the "true" C2 budget factors should be set at \$2.99 per square foot for rural schools, or \$5.97 per square foot for urban schools. We offered our opinion that a single budget factor would be advantageous, and, upon further analysis, we recommend a single budget factor of \$6.00 per square foot for all libraries.

Respectfully submitted,

/s/ John D. Harrington

John D. Harrington

Chief Executive Officer
Funds For Learning, LLC
2575 Kelley Pointe Parkway, Suite 200
Edmond, OK 73013

Category 2 Budget Utilization

FY2015 – FY2019

August 27, 2019

C2 is a Huge Improvement Over Priority 2

- No funding for internal connections in 2013 and 2014
- Prior to that, funds were mostly available to a small % of applicants
- Inconsistency hindered effective technology planning
- Networks became bottlenecked by on-campus connections
- Unknown E-rate results encouraged “all or nothing” applications

Now, with Category 2, from 2015 to 2019:

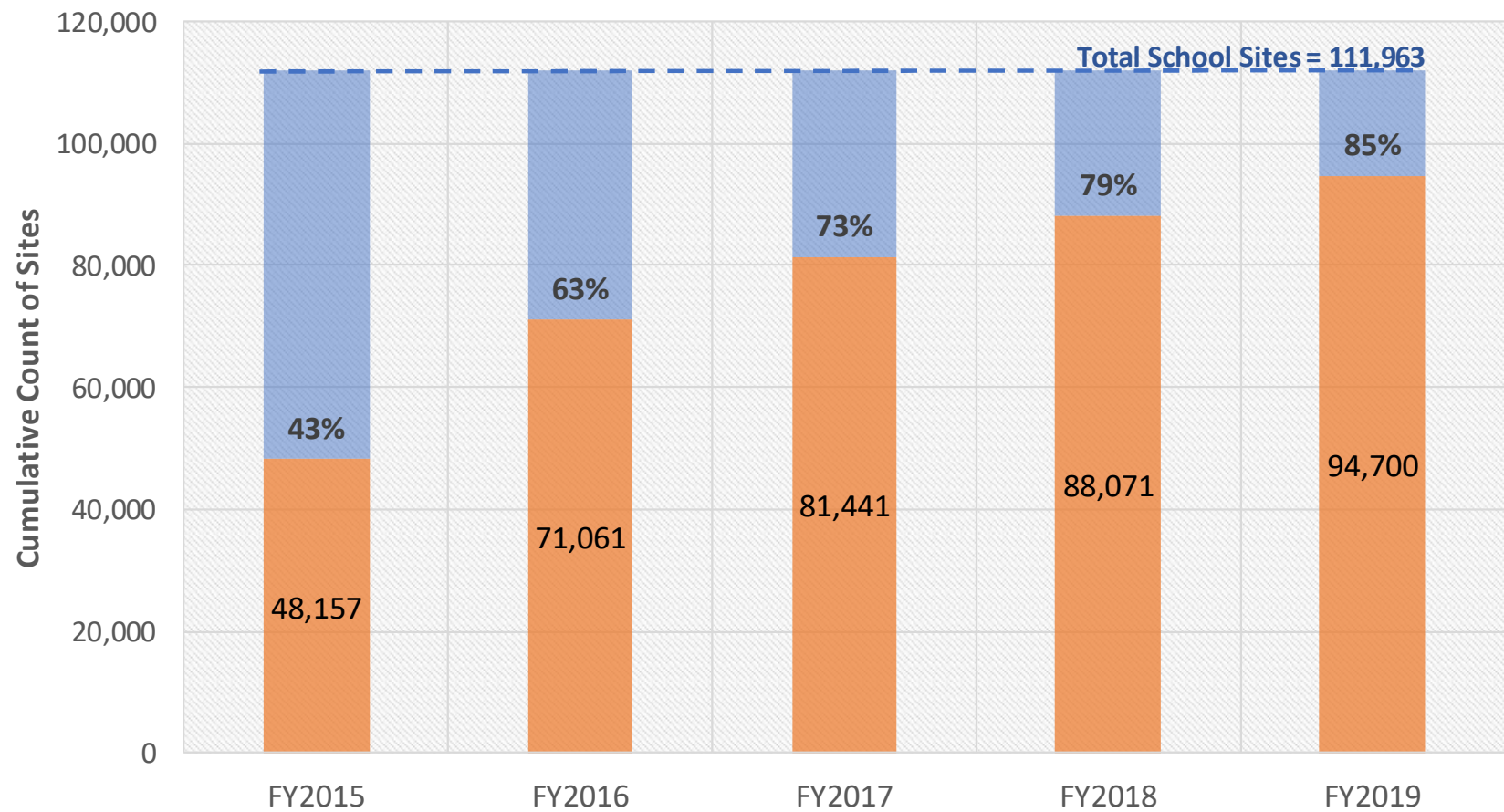
- All sites have the opportunity to receive C2 support
 - 85% of schools have received C2 support
 - 44% of libraries have received C2 support
- \$6.46 billion invested in on-campus networking (estimated)
 - \$4.69 billion invested in E-rate funds
 - \$1.77 billion invested from school and library budgets
- 84% of applicants agree they can depend on funding

Schools and Libraries Networks

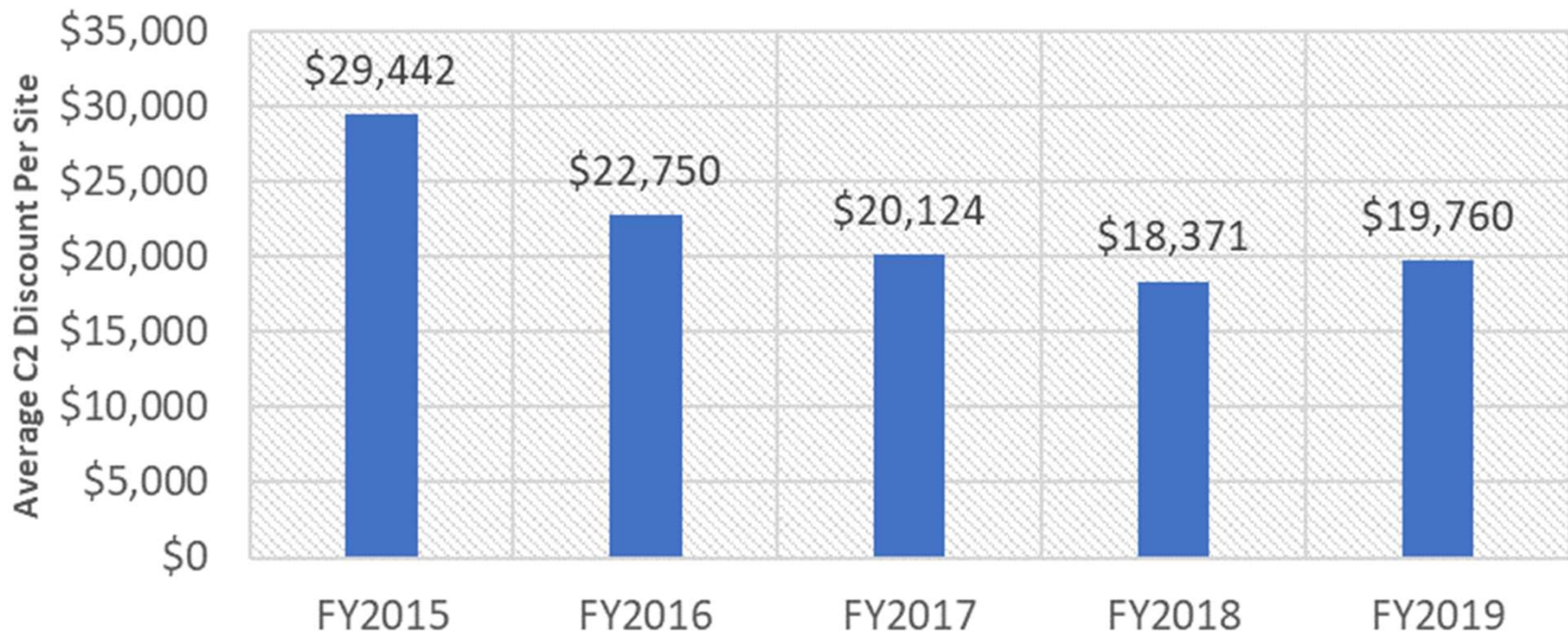
- Budget amounts are too low for 40% of sites
- Unnecessary complexity leads to delays and denials
- C2 data gathered by the FCC is incomplete

School Site Analysis

85% of school sites utilized C2 funds



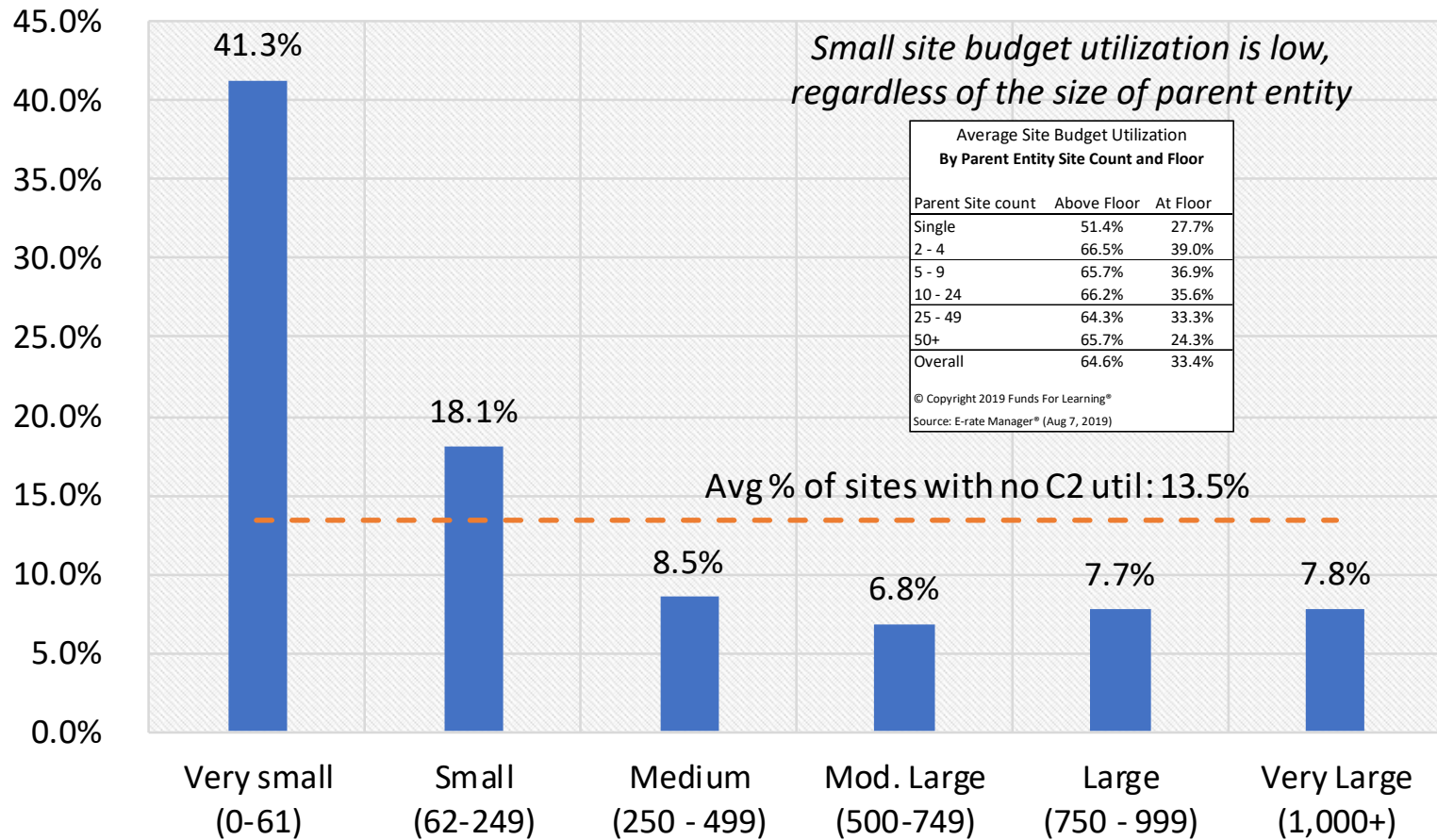
Avg Annual \$22,089/site requesting funds



About one-third of school sites apply each year

	FY2015	FY2016	FY2017	FY2018	FY2019
Total Budget Utilized	\$1,862,993,963	\$1,377,157,759	\$1,007,404,487	\$894,563,167	\$1,207,163,928
Total Discount Utilized	\$1,417,820,907	\$980,030,684	\$712,844,087	\$629,295,316	\$860,918,567
Count of Sites	48,157	43,078	35,422	34,254	43,569
Count of Parent BENs	8,785	8,130	6,967	6,837	8,679
<i>Avg Site Count Per Parent BEN</i>	5.5	5.3	5.1	5.0	5.0
Avg Budget Utilized per Site	\$38,686	\$31,969	\$28,440	\$26,116	\$27,707
Avg Discount Utilized per Site	\$29,442	\$22,750	\$20,124	\$18,371	\$19,760
Avg. Disc. Rate	76.1%	71.2%	70.8%	70.3%	71.3%
% of Sites Requesting C2	43.0%	38.5%	31.6%	30.6%	38.9%

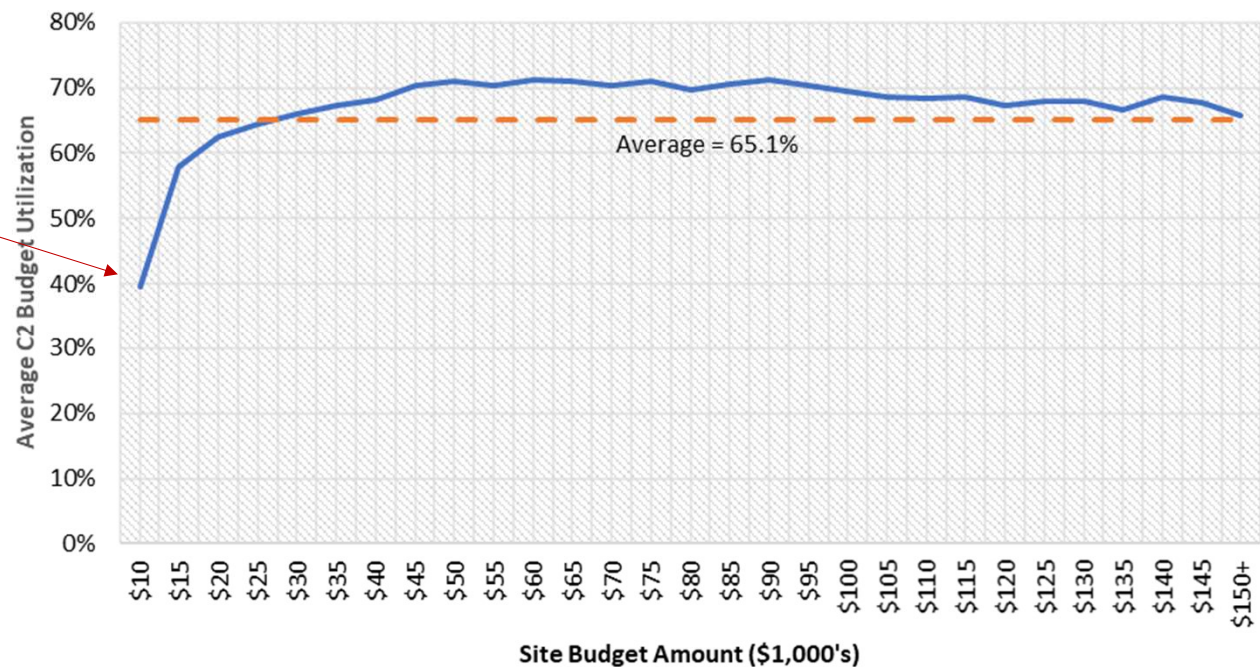
Very small schools 3X more likely not to apply



C2 utilization at small sites is below average

Available School Budget	Site Count	Average Utilization
\$10,000	12,200	39.7%
\$15,000	3,757	58.0%
\$20,000	3,863	62.5%
\$25,000	3,497	64.4%
\$30,000	3,550	66.1%
\$35,000	3,753	67.2%
\$40,000	3,888	68.1%
\$45,000	4,102	70.4%
\$50,000	4,343	70.9%
\$55,000	4,369	70.4%
\$60,000	4,564	71.2%
\$65,000	4,786	71.1%
\$70,000	4,525	70.4%
\$75,000	4,482	70.9%

Available School Budget	Site Count	Average Utilization
\$80,000	4,381	69.7%
\$85,000	3,857	70.6%
\$90,000	3,558	71.1%
\$95,000	3,353	70.4%
\$100,000	3,071	69.4%
\$105,000	2,701	68.5%
\$110,000	2,404	68.4%
\$115,000	2,260	68.5%
\$120,000	1,951	67.3%
\$125,000	1,722	68.0%
\$130,000	1,636	68.0%
\$135,000	1,340	66.7%
\$140,000	1,255	68.6%
\$145,000	1,076	67.7%
\$150,000+	11,719	65.9%
	111,963	65.1%

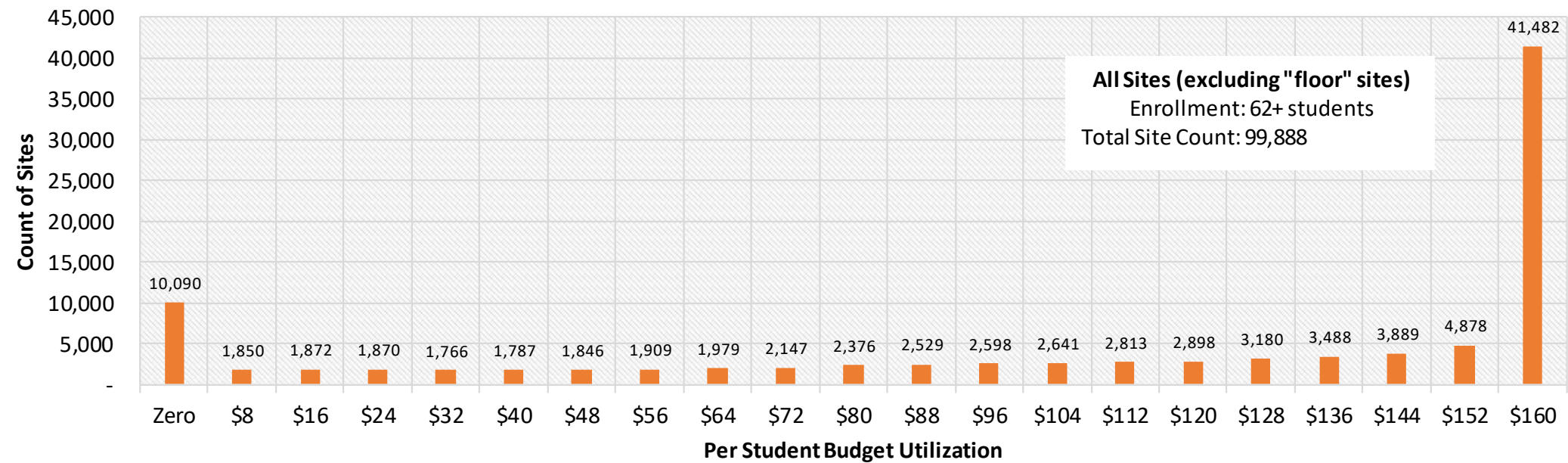


School Sites by Per Student Budget Utilization

Per Student Budget Utilization	Category Two Funds Requested						No Category Two Funds Requested						Total School Site Count	
	School Enrollment						School Enrollment							
	Very small 0-61	Small 62 - 249	Medium 250 - 499	Mod. Large 500 - 749	Large 750 - 999	Very Large 1,000 +	Very small 0-61	Small 62 - 249	Medium 250 - 499	Mod. Large 500 - 749	Large 750 - 999	Very Large 1,000 +	Total	%
No utilization							4,989	4,024	3,012	1,595	732	727	15,079	13.5%
Floor	7,086												7,086	6.3%
\$0.01 to \$7.98		264	510	526	258	292							1,850	1.7%
\$7.99 to \$15.97		359	666	434	196	217							1,872	1.7%
\$15.98 to \$23.95		382	631	498	154	205							1,870	1.7%
\$23.96 to \$31.93		355	595	415	188	213							1,766	1.6%
\$31.94 to \$39.92		350	627	416	178	216							1,787	1.6%
\$39.93 to \$47.90		343	654	428	196	225							1,846	1.6%
\$47.91 to \$55.88		355	644	517	200	193							1,909	1.7%
\$55.89 to \$63.87		401	646	497	203	232							1,979	1.8%
\$63.88 to \$71.85		391	700	571	255	230							2,147	1.9%
\$71.86 to \$79.83		438	793	626	248	271							2,376	2.1%
\$79.84 to \$87.82		449	862	663	270	285							2,529	2.3%
\$87.83 to \$95.80		460	934	652	273	279							2,598	2.3%
\$95.81 to \$103.78		457	968	662	262	292							2,641	2.4%
\$103.79 to \$111.77		469	1,042	709	290	303							2,813	2.5%
\$111.78 to \$119.75		465	1,051	731	325	326							2,898	2.6%
\$119.76 to \$127.74		529	1,091	819	401	340							3,180	2.8%
\$127.75 to \$135.72		605	1,228	942	351	362							3,488	3.1%
\$135.73 to \$143.70		663	1,392	1,002	438	394							3,889	3.5%
\$143.71 to \$151.69		836	1,751	1,276	520	495							4,878	4.4%
\$151.70 to \$159.67		9,679	15,602	9,363	3,564	3,274							41,482	37.0%
Total Site Count	7,086	18,250	32,387	21,747	8,770	8,644	4,989	4,024	3,012	1,595	732	727	111,963	100.0%

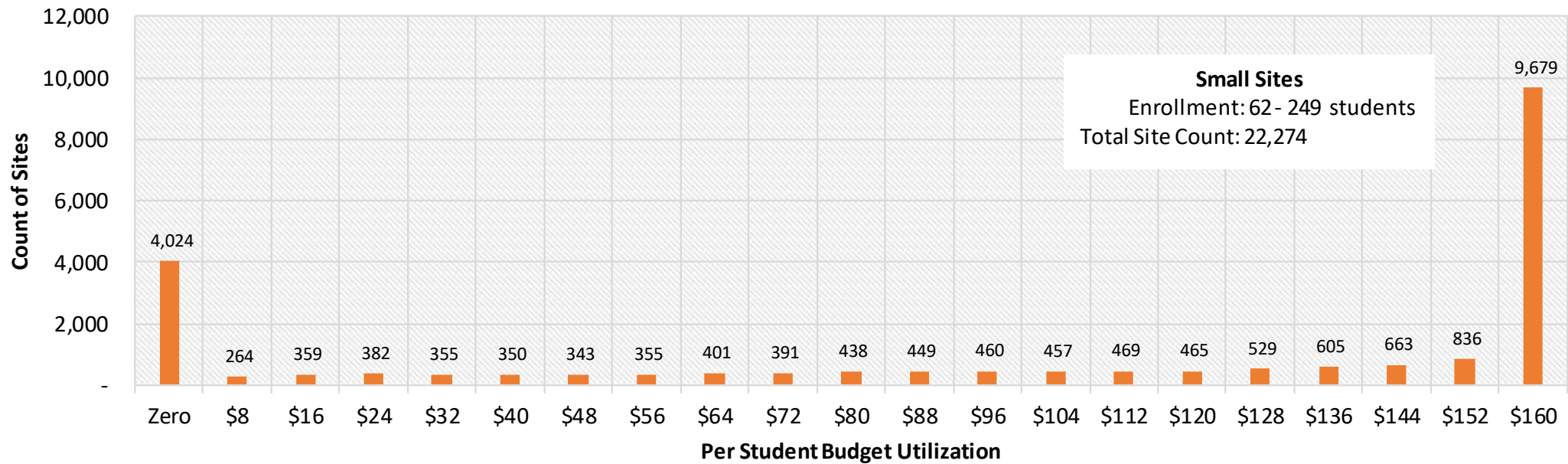
School Sites by Per Student Budget Utilization

All Sites



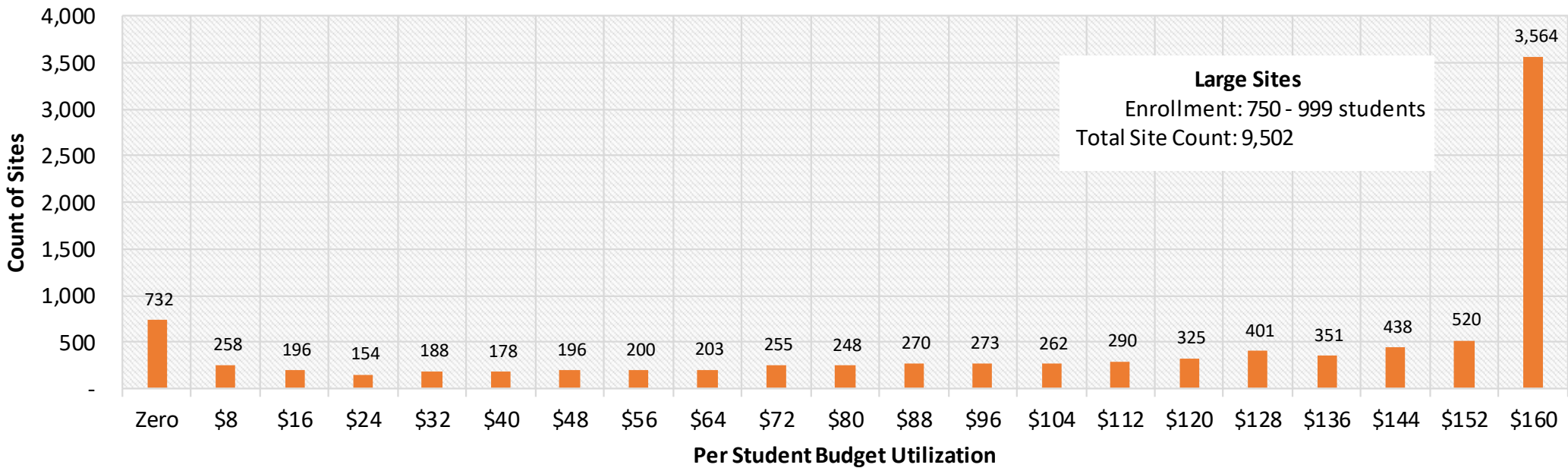
School Sites by Per Student Budget Utilization

Small Sites

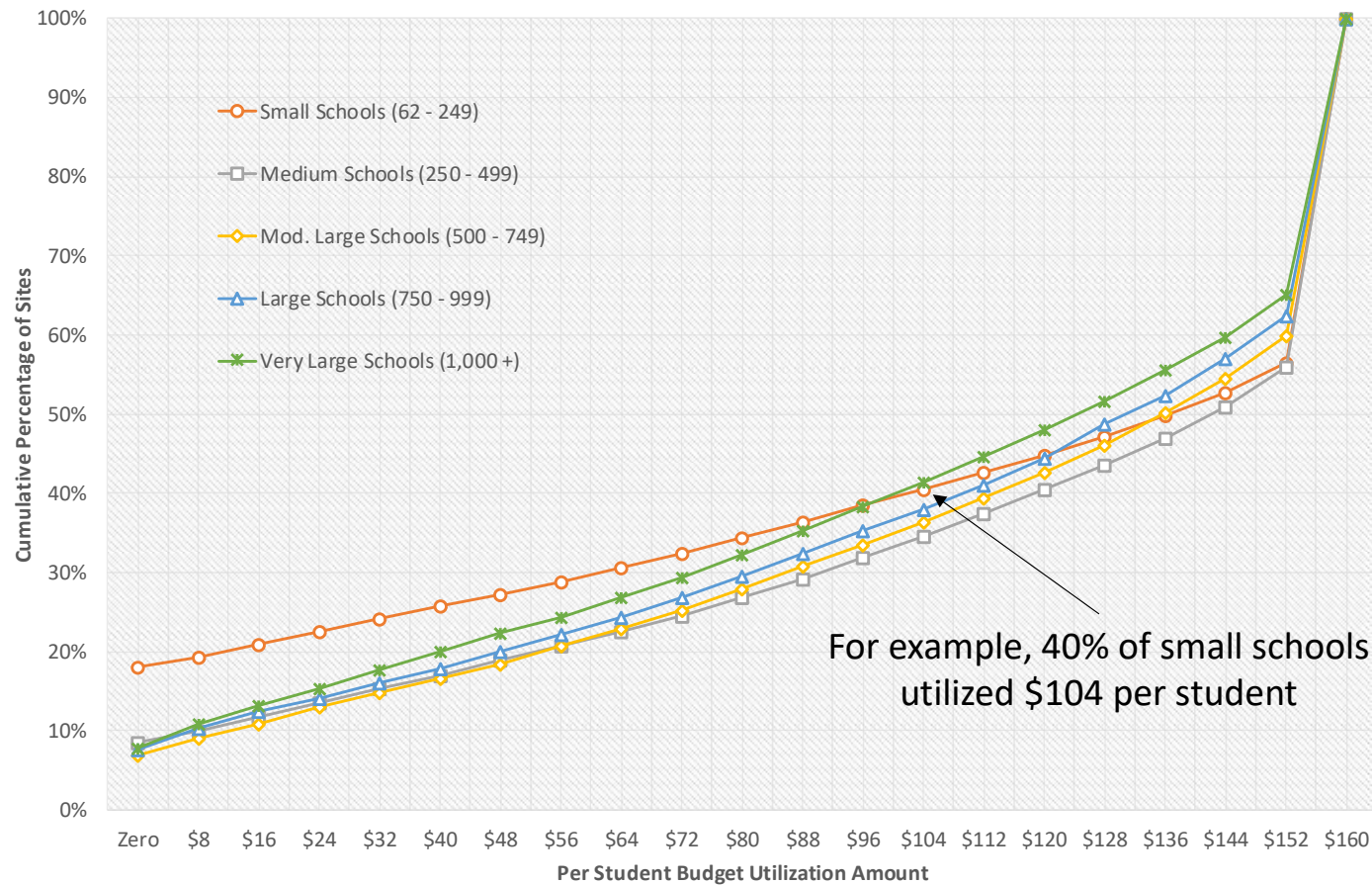


School Sites by Per Student Budget Utilization

Large Sites

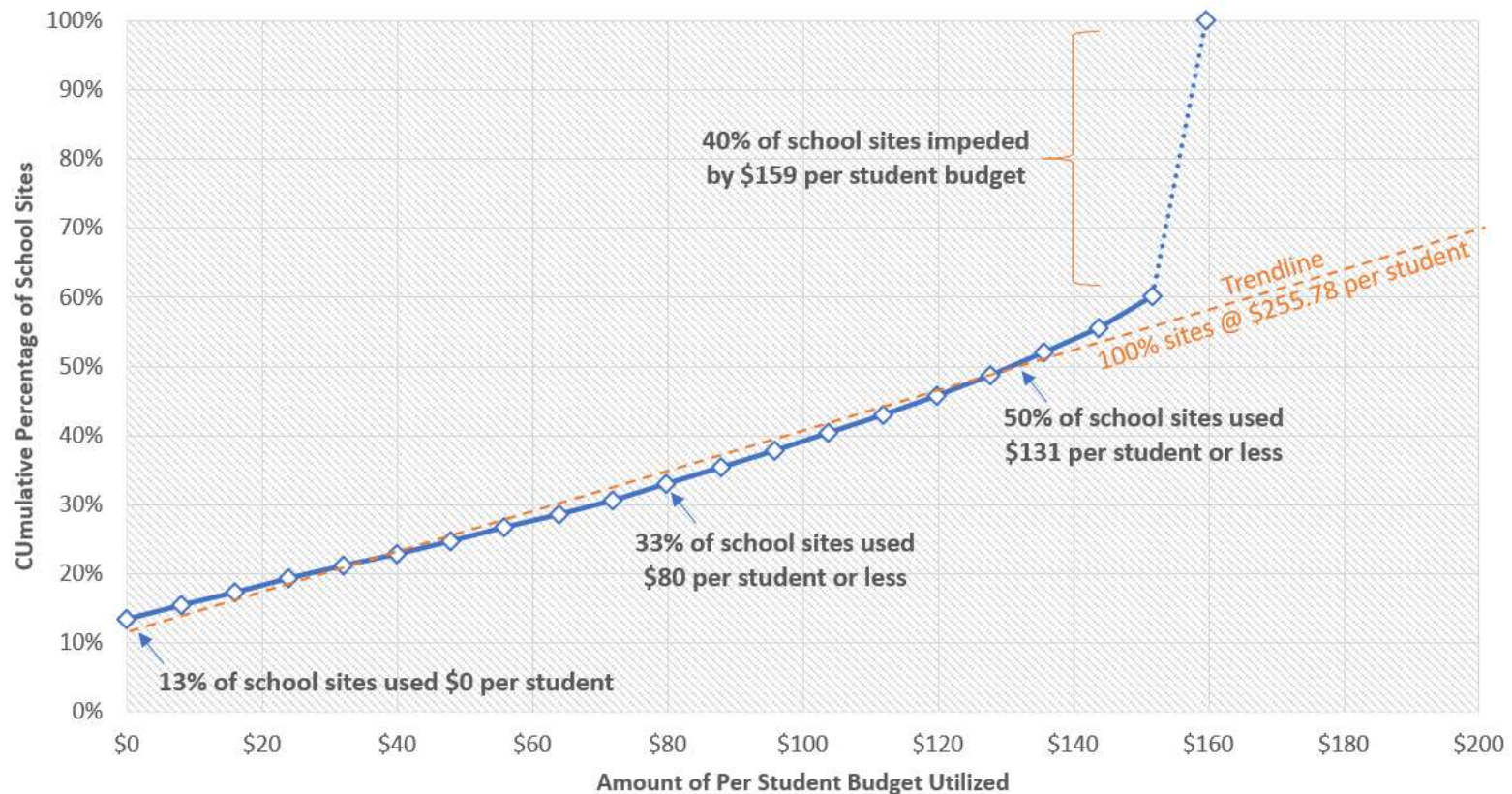


Cumulative % of Sites Using Per Student Budget



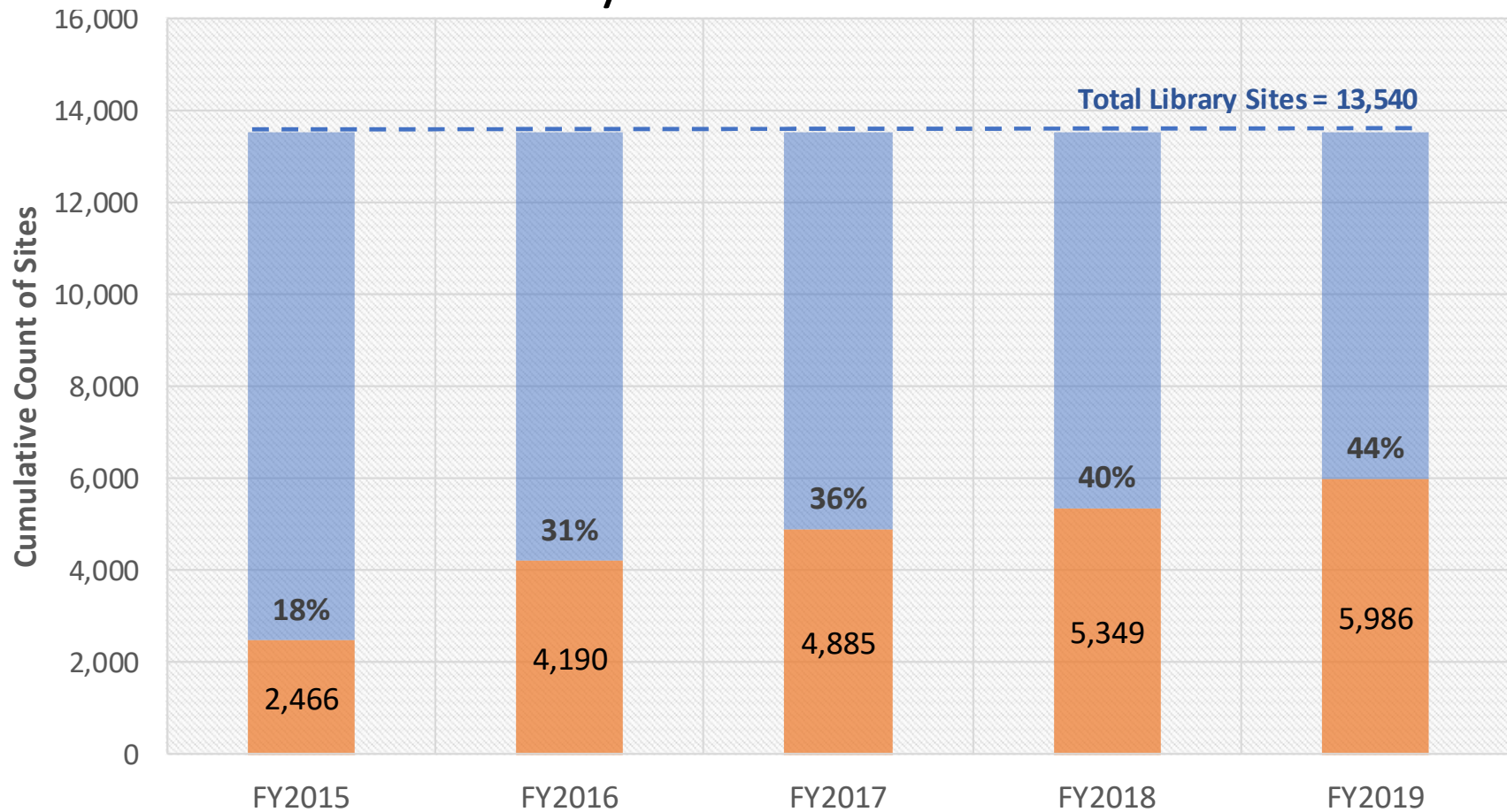
Forecasting % of Sites Using Per Student Budget

Majority of school sites used less than \$131 per student. Trendline indicates need for \$255.78 per student.



Library Site Analysis

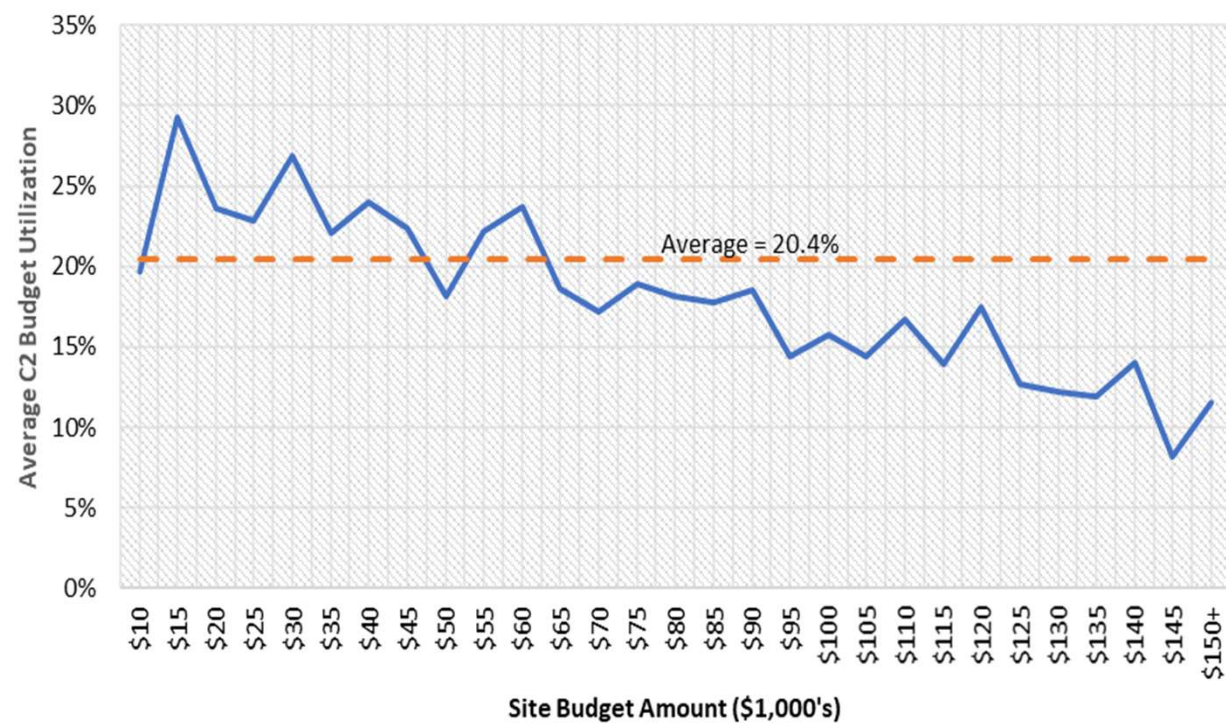
44% of library sites utilized C2 funds



C2 utilization at libraries declines with budget

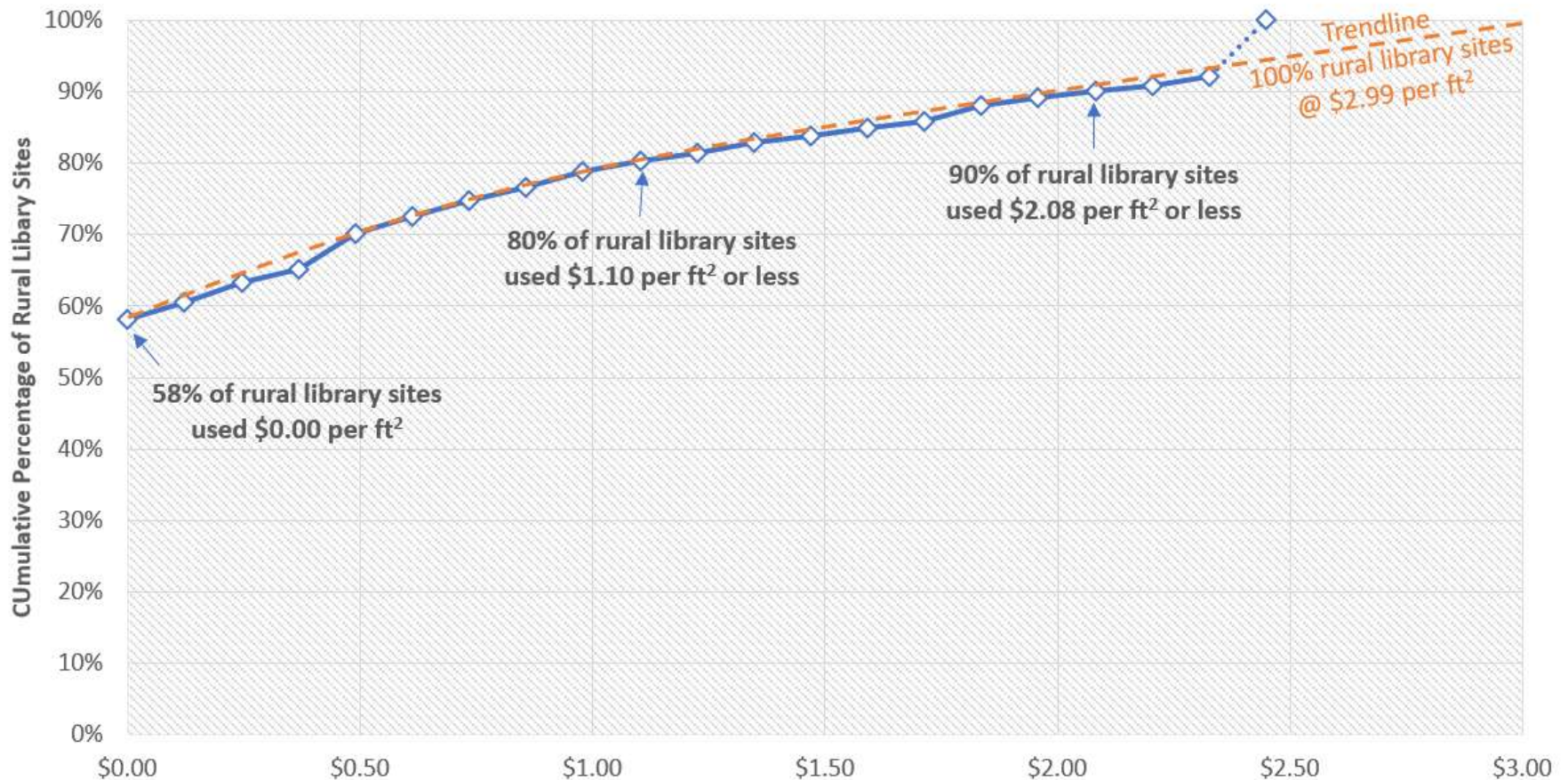
Available Library Budget	Site Count	Average Utilization
\$10,000	5,362	19.7%
\$15,000	1,098	29.3%
\$20,000	722	23.6%
\$25,000	842	22.9%
\$30,000	490	26.9%
\$35,000	388	22.1%
\$40,000	432	24.0%
\$45,000	315	22.3%
\$50,000	251	18.2%
\$55,000	338	22.2%
\$60,000	250	23.8%
\$65,000	274	18.7%
\$70,000	218	17.2%
\$75,000	164	18.9%

Available Library Budget	Site Count	Average Utilization
\$80,000	201	18.1%
\$85,000	124	17.8%
\$90,000	157	18.6%
\$95,000	96	14.5%
\$100,000	112	15.8%
\$105,000	84	14.4%
\$110,000	132	16.7%
\$115,000	84	14.0%
\$120,000	72	17.5%
\$125,000	58	12.7%
\$130,000	60	12.2%
\$135,000	111	12.0%
\$140,000	60	14.1%
\$145,000	38	8.2%
\$150,000+	1,007	11.6%
13,540		20.4%



Cumulative Percentage of Rural Library Sites Based on Per Sq. Footage Budget Utilization

58% of rural library sites did not apply for Category 2. Trendline indicates need for \$2.99 per square foot.



Cumulative Percentage of Urban Library Sites Based on Per Sq. Footage Budget Utilization

44% of rural library sites did not apply for Category 2. Trendline indicates need for \$5.97 per square foot.

